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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,838	01/16/2004	Hiroaki Tomofuji	FUJI 20.881	8736
26304 7590 10/01/2008 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585				
EXAMINER				
LIU, LI				
ART UNIT		PAPER NUMBER		
2613				
MAIL DATE		DELIVERY MODE		
10/01/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/759,838

**Applicant(s)**

TOMOFUJI ET AL.

**Examiner**

LI LIU

**Art Unit**

2613

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 September 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-10.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Kenneth N Vanderpuye/  
Supervisory Patent Examiner, Art Unit 2613

Continuation of 11, does NOT place the application in condition for allowance because: Applicant's arguments filed on 9/22/2008 have been fully considered but they are not persuasive, and do not place the application in condition for allowance.

1). Applicant's argument - "Bergano describe passively splitting multiplexed signals to respective "N distinct bands" with center wavelengths  $\lambda_1 \dots \lambda_N$  for respective dispersion compensation. In other words, Bergano itself already describes a technique for splitting signals for dispersion compensation, and the alternative parameters—e.g., bit rate—for "switching" demultiplexed wavelengths described in Tomofuji et al. (I) are incongruous with the technique described in Bergano."

Examiner's response - Bergano teaches to demultiplexes the input multiplexed signal so as to output the demultiplexed wavelengths (each wavelength band has a specific center wavelength) at desired output ports while routes of the demultiplexed wavelengths leading to the output ports; and Bergano teaches a plurality of dispersion compensation units which are connected to the respective output ports, and have respective, different dispersion values. But, in Bergano's system, the wavelength router (303 in Figure 3) or splitter (203 in Figure 2) is a "passive-like" device, not an "active" switch that can be controlled.

In Tomofuji's system, each channel has different wavelength and specific bit rate (40 Gb/s or 10Gb/s etc.). The demultiplexer 10 is a wavelength selection element that demultiplexes input signal light in accordance with wavelength. And Tomofuji clearly discloses that in each of the optical switches 11-1 to 11-2m, light sent to the input port from the demultiplexer 10 is output from one output port set in advance according to the wavelength arrangement of optical signals. The switching operation of each of the optical switches 11-1 to 11-2m is set according to the wavelength arrangement of the optical signals Ch1 to Chx of each channel as shown in the middle part of FIG. 2. As shown in Figures 1 and 2, Ch 1 is outputted from 12-1 and Ch 2 is outputted from 12-2 etc. And each channel has different wavelength. And Tomofuji teaches that the control circuit recognizes the bit rate, wavelength arrangement and the like of each optical signal based on the transmission information from the optical senders, and according to the results, controls the switching operations of the optical switches 11-1 to 11-2m so as to ensure required bandwidth corresponding to each bit rate. That is, the switch is according to the wavelength, and also based on the bit rate to ensure required bandwidth. Even though the switching is also according to the bit rate, the data signal with the specific bit rate must be transmitted or modulated on a specific wavelength; and the switching router actually routes the wavelength channels to specific output ports. That is, Tomofuji et al teaches an "active" switching routing that switches channels to different output ports, and the switching is controlled by a controller.

By applying the "active" switching router as taught by Konishi and Tomofuji et al to the system of Bergano, the demultiplexed channels can be sent to any one of the dispersion compensation units. It is well known that the total dispersion value of a channel depends on the transmission distance (each channel may be added or dropped at different add/drop node), bit rate and wavelength used. Therefore, each channel may have different total dispersion value (or some channels may have similar total dispersion values); by the "active" switching, the individual channel can be sent to a specific dispersion compensating device that matches the total dispersion value of the individual channel. Therefore, it is obvious to one skilled in the art to combine Konishi and Tomofuji et al with Bergano so that a flexible dispersion compensation can be performed according to various dispersion characteristics of each channel, and the dispersion of each individual channel can be precisely and efficiently compensated by optimally choosing one of the plurality of dispersion compensating devices.

2). Applicant's argument - And furthermore, Bergano, as cited and relied upon by the Examiner—and correspondingly, the proposed combination of references—only describes dispersion compensation for respective wavebands. For example, Fig. 5 of Bergano illustrates signals from "wavelength routing device 503" being separated signals into two wavebands, low band and high band, for respective dispersion compensation through fibers 504 and 505. Please see col. 5, lines 29-55 of Bergano. And the remaining disclosure of Bergano consistently describes embodiments of dispersion compensation for an N number of output bands. Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art to combine Bergano, Konishi, and Tomofuji et al. (I) at the time the claimed invention was made, such a combination would have, at most, suggested having a same dispersion compensation for multiple respective bit-rate-"switched" demultiplexed signals in respective "wavebands" or "output bands."

Examiner's response - As disclosed by Bergano, a wavelength router (e.g., 303 in Figure 3) is used to demultiplex the incoming signals into N distinct output bands, each band has a center wavelength, e.g., center wavelengths  $\lambda_1 \dots \lambda_N$ ; and then each wavelength band is inputted to a respective dispersion compensation fiber (e.g., 304 in Figure 3), and each dispersion compensation fiber has respective different dispersion values (column 4 line 20-26). Therefore, as also discussed in section 1) above, the combination of Bergano, Konishi, and Tomofuji et al. (I) teaches and suggests having a different dispersion compensation for the demultiplexed signals in respective wavelength band, each band has different or distinct center wavelength; that is, the combination of Bergano, Konishi, and Tomofuji et al. (I) teaches and suggests "switching routes of the demultiplexed wavelengths leading to the output ports" and "a plurality of dispersion compensation units which are connected to the respective output ports, and have respective, different dispersion values".